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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/544,147

08/02/2005

Massimo Guarducci

CIO 004

5649

39232 7590 06/06/2008  
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EXAMINER

CHUNG, RAYMOND

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

06/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/544,147	<b>Applicant(s)</b> GUARDUCCI, MASSIMO	
	<b>Examiner</b> RAYMOND CHUNG	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cain (US patent 3,498,740) in view of Koerner et al (US patent 4,248,590).

With regards to claim 1, 2 and 5, Cain discloses a method of imparting permanent dimensional stability and finish stability, which can be construed as preventing shrinkage, of keratinous fibers (see title), such as wool. Cain discloses a process comprising padding an all wool weave fabric with a solution comprising 2.6% sodium bisulfite followed by drying and calendering, which can be considered mechanical treatment. The wool fabric is then treated with a pre-polymer solution comprising blocked tolylene-2,4-diisocyanate (reaction product of propylene

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glycol/glycerin adduct with tolylene-2,4-diisocyanate) and trichloroethylene, which can be considered a vinyl chloride resin (C14/L65-C15/L39).

While Cain teaches a blend comprising a vinylic resin and a blocked polyisocyanate, the reference does not teach the blend further comprising at least one compound from the groups of silicon emulsions, macro-emulsions, and cationic fabric conditions.

Koerner et al teach a preparation for shrink-proofing wool comprising organopolysiloxanes and that such preparations provide emulsions (see abstract). Koerner et al further teaches that said emulsions provide durable shrinkproof properties to wool without adversely affecting the "hand" of the wool.

Cain and Koerner et al disclose analogous inventions related to preventing shrinkage of wool. Therefore, it would have been obvious to one having ordinary skill in the art to modify the blend in the method taught by Cain by incorporating the silicon emulsion comprising organopolysiloxanes taught by Koerner et al for the purpose of providing durable shrinkproof properties to wool without adversely affecting the "hand" of the wool.

With regards to claim 3, modified Cain teaches all of the claim limitations set forth above.

While modified Cain teaches a wet pickup of 100%, corresponding to 100% by weight of fabric of treatment solution (Cain, C15/L42), the references does not teach a total amount of up to 50% by weight with respect to total weight of fabric.

However, modified Cain does teach a drying step following contact of the treatment solution (C15/L44-45). Therefore, since the drying time would be a variable that can be modified by adjusting the weight percentage of blend, the weight percentage of blend would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed weight percentage cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the weight percentage of blend to obtain the desired drying time (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 223).

With regards to claim 3, modified Cain teaches all of the claim limitations set forth above.

While modified Cain teaches contacting wool with the treatments set forth above, the references do not teach carrying out said treatments at temperatures ranging from 20-100°C.

However, modified Cain does teach an internal stabilization step, wherein a reduction reaction is carried out by a reducing agent, and an external stabilization step, wherein a setting operation involving curing of pre-polymers (C15/L45), carried out to improve dimensional stability (C2/L3-26). Since one having ordinary skill in the chemical arts would realize that the rate of chemical reactions, such as reduction and curing, is

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affected by temperature, it would have been obvious to optimize the temperatures at which the two treatments are carried out. Since the rate of reaction is a variable that can be modified by adjusting the temperature, the temperature would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed temperature cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the temperature to obtain the desired rate of reaction (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 223).

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAYMOND CHUNG whose telephone number is (571)270-3881. The examiner can normally be reached on Monday-Thursday, 9am-6pm EST, Alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorna M Douyon/  
Primary Examiner, Art Unit 1796

/R.C./  
4 June 2008